

## EDCO FORUM®

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## AMERICAN RADIOSURGERY, INC., NEXT-GENERATION IN RADIOSURGERY TECHNOLOGY

he Rotating Gamma System GammaART-6000<sup>™</sup>, manufactured in the United States exclusively by American Radiosurgery, Inc. (San Diego, CA), represents an innovative system for the noninvasive treatment of benign intracranial mass lesions, arteriovenous malformations, functional abnormalities such as trigeminal neuralgia, metastatic brain tumors, and other intracranial malignancies.

The **Rotating Gamma System**™ is a new radiosurgery system that uses Cobalt-60 and is designed to maintain the functionality, simplicity, and accuracy of the original gamma-based design introduced more than 30 years ago.

The rotation of the Cobalt-60 gamma ray beams during treatment is the major enhancement, resulting in many advantages. For example, rotating the source body, primary, and secondary collimators together allows for a smaller number of radiation sources to be used. Further, since the beams converge from a greater solid angle as compared with the static design, the radiation dose delivered to normal, healthy tissue surrounding the target can be reduced, since the dose

to the normal tissue is spread over a greater volume. Secondary collimators are built in, thus eliminating the need for secondary collimator helmets, simplifying setup and changing of the treatment spot size. This design minimizes the dose to surrounding organs and tissues without increasing the treatment time nor positional uncertainties.

Tomasz K. Helenowski, MD, of the Stereotactic Radiosurgery Institute in Gurnee, IL, has used radiosurgery in more than 2,400 cases. He selected the Rotating Gamma System GammaART-6000™ to be the main instrument over all the other technologies because of its technological advances:

- · No awkward, external helmet is necessary.
- No need to interrupt treatment, remove the patient from the device, and change plugs on a cumbersome patient helmet.
- The advanced source arrangement results in a focal point approximately 30 mm farther toward the neck, which enables clinicians to treat tumors previously unreachable with the Gamma Knife™.
- Because of the rotation and automatic source-collimator registration, the system can be turned off and on with the patient in treatment position (i.e. for blocking the eyes).
- The system's source strength is distributed over only 30 sources, resulting in substantial cost savings in purchasing the system and reloading in 5 to 7 years.

The modern treatment planning system includes the following functionality not found in other planning systems:

- 3D and 4D (time-domain) reconstruction and stereo viewing.
- DICOM and DICOM-RT import and export.
- Ultra-fast isodose calculations and display.
- CT, MRI, and PET fusion.
- Automatic Skin (skull shape) detection from images.
- Built-in Teleconferencing.
- · Patient anonymization for publishing and data sharing.

Dr. Helenowski added, "The GammaART-6000™ has the capability to perform Intensity Modulated Radiosurgery. It is the only Cobalt-based machine in the world with this capability."

"The GammaART-6000™ has been able to do all of the cases I have performed with two types of Gamma Knives™ I have used in the past. In addition, cases not possible on those machines were made possible because of the advancements in the GammaART-6000™ and the

Explorer 3D planning system," Dr. Helenowski stated.

This state-of-the-art technology with its extended application lends itself to some substantial advantages for the patient, the neurosurgeon, and the hospital. Centers using the Rotating Gamma System™

can enjoy a competitive advantage from other institutions utilizing the original Gamma Knife™ technology that has not changed in decades. The Rotating Gamma System™ has the following functional components: the sterotactic localization system; the gamma-ray treatment unit composed of the radiation unit, treatment table, and sliding cradle; and the treatment planning system.

American Radiosurgery, Inc., is a neurosurgical and radiosurgical device company providing advanced technology for the noninvasive treatment of brain tumors and other brain disease entities. The manufacturing plant, headquartered in California, manufactures, assembles, tests, and ships the units. The unit adheres to all FDA/GMP requirements.

For more information concerning American Radiosurgery, Inc., call 1-858-451-6173, or visit the company's Web site at www.radiosurgery.net.

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